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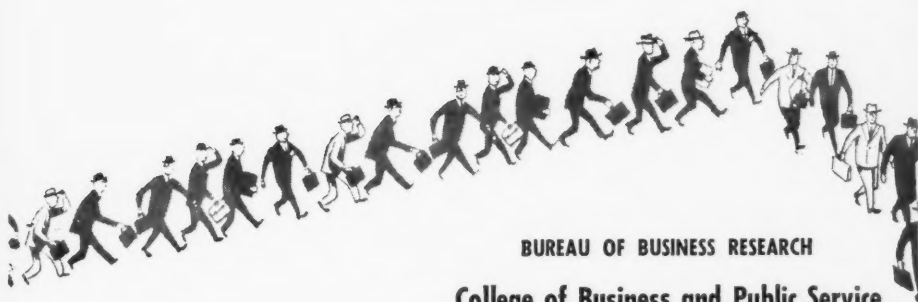
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# STATE OF THE ECONOMY

By MARVIN HOFFMAN\*

*Again it is timely to review current economic trends and to assess their portent.*

The past year has been a remarkable one from most standpoints. The dynamic vitality of our economy brought about an unexpected and unprecedented year—a record one in almost every respect. All-time records were established in many key segments of the economy—gross national product, national income, retail trade, consumer credit, industrial production, total construction, and automobile production—to name only a few items. The agricultural segment was the only major area that did not share in the economic bonanza.

There was little in the 1954 year-end situation to reflect anything other than optimism for the advent of 1955 in the atmosphere of generally rising business trends of the final months of 1954; however, such optimism did not envisage the actual surge of prosperity that was characteristic of 1955. The possibility of major strikes in the automotive industry during wage negotiations did not materialize in any substantial way and little took place during the year that had a lasting depressing effect.

## United States

*Industrial Production* — Industrial production, as measured by the Federal Reserve Index of Industrial Production, equalled or exceeded every monthly figure of 1954 and generally set new successive all-time records during the Fall months. The rate of climb of in-

dustrial production seems to have levelled off at year-end as many basic industries began to reach the limit of their productive capacities. Yet the production index stood at a record 144 percent of the 1947-49 average in November, and this figure was 21 points above the Summer low in 1954. The principal factor was the field of durable manufactures whose index stood at a record 163 in November; within this group of durables, it was electrical machinery and transportation equipment that were the booming areas. Of most importance to Michigan, because of the number of persons employed, was transportation equipment. Non-durable manufactures did not exhibit any such spectacular growth pattern although such activity has been gradually and rather steadily increasing to the record 129 percent of the 1947-49 average during the month of November. While some areas, notably food, textiles, and leather products have not kept pace with the rest of the non-durables, other areas such as chemicals, petroleum and paper products have led the nondurables.

Because of the heavy demand for steel from the makers of automobiles, railroad cars, and other forms of transportation equipment, the demands for steel have been straining the steel industry almost to its 1955 capacity of about 126 million annual net tons of ingots. In fact, 1955 steel production by December had already passed the all-time one-year high of 111,609,719 tons set in 1953. The American Iron

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and Steel Institute estimates that the mills' output in 1955 will exceed 116,000,000 net tons. Because of this demand, *Iron Age* has recently reported that a 16 million ton increase in annual capacity is being planned by the steel industry.

*Construction*—The construction industry has been at record levels during most of the year. The total volume of building, at an estimated \$42 billion, smashed all records for the tenth straight year and increased 12 percent over 1954. New nonfarm dwelling starts in 1955 are expected to exceed 1,300,000 which was surpassed only by 1950's 1,396,000 starts. During most of the year, housing starts were ahead of 1954 levels, but by Fall, there was a marked decrease in home construction, due partially to a tightening of both the Veterans Administration and the Federal Housing Administration and partially to a general tightening of the money market. The 1955 total housing starts should exceed 1954's total by at least 50,000 units.

*Employment and Unemployment*—Employment of the civilian labor force during the year was at advanced levels most of the time and reached an all-time high of 65,488,000 during August. For the first 11 months of the year, average civilian employment was over 63 million—and the yearly average will break 1953's previous peak average of 62,213,000. During the third quarter of the year, employment averaged about 65 million, but this is generally the season of highest employment. Unemployment decreased rather steadily during the year, ranging from 3,347,000 in January to 2,131,000 in October, a level which might be regarded as a practically irreducible minimum. Unemployment in November stood at 2,398,000.

*Retail Trade*—Consumer spending and retail trade have also been maintained at record levels during the year. Department store sales for the year through mid-December for example, were running about 7 percent above the previous year. Dun & Bradstreet estimated that the consumer spending in December would hit an all-time high of \$19 billion for a gain of 6 percent over December 1954. Total retail sales, at an estimated \$185 billion, were 9 percent above 1953's peak of \$170,741,000,000. Part of this high level of spending was due to increased personal income and the increased use of consumer credit. The present record size of the consumer debt has been the cause of some discussion in recent months. Total consumer credit rose an estimated \$5.8 billion during the first 11 months of the year, reaching a record total of \$35.1 billion by December. Automobile paper has been one of the prime factors in the credit picture and the total of automobile paper of \$14.2 billion at the beginning of December, was \$3.9 billion over the beginning of the year.

*Gross National Product*—The Gross National Product (the value of all goods and services produced in the United States) probably will attain an unprecedented (and unexpected) \$387 billion for the entire year of 1955. At an annual rate of \$391.5 billion during September, the GNP was fully \$32.7 billion above the figure for September 1954. Personal income was rising steadily throughout the year and reached a reported annual rate of \$309.6 billion during the final quarter.

*Prices*—Both on the wholesale and retail level, overall prices have shown slight tendencies to edge upward during the year. It was generally foods and

farm products that were responsible for dampening any large general increases in the price level, as shown by U. S. Department of Labor's Consumer Price Index and Index of Wholesale Prices. Both indexes, in the aggregate, have not varied more than 2 percent in the last 3 years from high to low. The Consumer Price Index stood in October at 114.9 percent of the 1947-49 average, 0.6 percent above the January figure. The food segment at 110.8 in October was 1.0 percent below the corresponding figure of the preceding year, with meats 3 percent below the previous year. The housing and medical care components have shown the most steady upward changes and, together with transportation, were at the highest levels relative to the 1947-49 averages. On the wholesale level, the Index of Wholesale Prices stood at 111.2 percent of the 1947-49 level during November, and this represented a 1.1 percent increase over the beginning of the year. The index at this point, however, was about 4 percent below 1951 level. Farm products in general comprised the most seriously depressed segment of the wholesale price structure, with this group including grain, livestock and poultry, inedible fats and oils, hides and skins, and leather. The most notable wholesale price increases were shown by rubber and rubber products and wood products. These segments of the Wholesale Price Index not only experienced substantial price increases during the year, but also were the items showing the biggest total increases over the 1947-49 level.

*Agriculture*—The agricultural situation has been the subject of more than a slight amount of concern during the year because of falling prices, increasing farm operational costs, and the re-

sulting decrease in the parity ratio (the ratio of prices received to prices paid by farmers). The acuteness of the farm problem is indicated by the fact that farm prices are now about 20 percent below the 1951 peak while prices paid by farmers continue to advance. The resulting parity ratio has dropped from an average 115 in 1947 to 81 during November, although there had been a slight improvement in the farm price situation during the time of the Korean War.

Although the prices of farm products have decreased from 243 percent of the 1910-14 level at the beginning of the year to 225 percent during November, the general value of farm land has increased a reported 3 percent during the year. One factor in this increased valuation of farm land has been the trend to a smaller number of larger farms the Census Bureau has reported in the advance releases from the 1954 Census of Agriculture. Curiously enough, there has also been a sizable increase in the number of small (less than 10 acres) part-time farms.

Net income of farm operators in 1955 was about 10 percent lower than in 1954, and the prospect is for some further declines in 1956. The net income per farm has not fallen as precipitously because of the smaller number of farms and an apparent increase in the number of farm operators working away from their farms.

The basic problem in agriculture has been, and will continue to be, that of surplus production far in excess of market requirements. Tremendous strides in electrification, mechanization, methods of farming, and development of higher-yielding crop varieties brought about a staggering level of output during the 1940's—with the use of less

manpower. Even though our population has increased considerably, it is unreasonable to expect any sizable immediate increase in food consumption that can offset the farm output that foreign countries were able to absorb during and immediately following World War II. Because of the level of farm output, some have even concluded that we still have too many farms and farmers.

### Michigan

By almost any measure 1955 has been an excellent year throughout most of the State and, especially, the Lower Peninsula. The record-shattering automobile production has been the most important stimulus leading to unprecedented level of business activity.

*Automotive Production* — Automobile production during 1955 exceeded even the most optimistic predictions of a year ago and has been one of the bellwethers of 1955's business boom. The expectation of an 8 million passenger car year saw the total number of vehicles produced during the first 11 months of the year already in excess of the high established in 1950 when 6,665,863 passenger cars and 1,337,193 commercial vehicles were produced. During the year, production records for automobiles were constantly being shattered. The year's total of almost 8 million passenger cars produced would be 1.3 million greater than 1950's former record figure.

Automobile dealers are to be commended for being able to market such a substantial output; however, the picture was not one of unmixed blessings. The disposal of the multitude of 1955 model cars was accomplished only by means of considerable price concessions. Concern is now being felt that

customers for the 1956 models are insisting on similar 1955 clean-up prices, and, in addition, a certain amount of buyer resistance is apparent. The stockpile of unsold new cars in Mid-December was reported by *Automotive News* to be more than 700,000—compared to a stockpile of only 265,153 on December 1, 1954. The highest reported inventory on record was 848,498 on June 1, 1955.

Certainly, substantial dealer inventories, price increases on 1956 models, and buyer insistence on deals can not lead to a healthy sales structure at this time. The expectation of a drop in automotive production in 1956 is almost certain. In fact, some reduction in weekly output has already occurred on the 1956 models. A 6.5 to 7 million car year is all that one can reasonably expect in view of current market conditions.

### *Employment and Unemployment—*

The employment and unemployment picture throughout the year has been influenced markedly by the automotive situation, especially in the major population centers where automotive manufacturers and automotive suppliers are substantial employers. Total non-farm employment in the State generally has been upward except for a late-Summer drop associated with automotive model-changes and the necessary preparation. The high of 2,616,000 was reached during the month of November. Manufacturing wage and salary employment reached a high point of 1,196,000 during May, then dropped off to a low of 1,128,000 during September with the advent of new automobile models, and then reached 1,200,000 in November. Non-manufacturing employment has been exceptionally strong during the entire year. Non-manufacturing estab-

lishments added 84,000 wage and salary workers between January and November, reaching a total of 1,192,000 during the latter month.

State-wide non-farm employment was significantly above 1954 levels most of the year, running as high as 8 percent above 1954 figures in September. These increased employment figures were experienced in most of the major centers of the Lower Peninsula throughout most of the year. The Upper Peninsula, however, did not experience a month when estimated employment exceeded 1954 until September.

The State's unemployment fluctuations have been very closely associated with the automotive picture. State-wide, unemployment began at 153,000 in January; then dropped to a low of 75,000 in May; then steadily increased to 138,000 during September; it dropped to 67,000 in November. In the Upper Peninsula, unemployment began the year with an estimated 11,800 and then increased to 12,700 in March (representing more than 12 percent of the U.P. labor force) and then decreased rather steadily toward year-end.

**Retail Trade**—Throughout most of Michigan, retail trade has been at record breaking levels throughout the entire year, and the 1955 Christmas season was no exception. Retail sales tax collections in the State were averaging more than 15 percent above 1954 levels during the latter half of the year. Part of this total increase was due to heavy automobile sales, but high personal income was supporting heavy consumer purchasing.

Department store sales have been very good, especially in the industrial centers. For the State as a whole, department store sales in the first 11 months of the year were running 12

percent above 1954. In Battle Creek, sales were 31 percent over 1954; in Lansing, 20 percent; in Flint, 13 percent; and in Detroit, 12 percent. And no major area of the State failed to witness an improvement in department store sales in 1955 compared to 1954. Despite the newspaper strike in Detroit, department store sales ran ahead of Christmas of 1954.

**Banking Activity**—Bank debits (checks against depositors' demand accounts) provide one of the most sensitive indicators of the pulse of business activity. The volume of such banking activity in all areas of the Lower Peninsula has been significantly above 1954 levels—another indication of the general state of economic well-being that Michigan has enjoyed during the year. Only the centers of the Upper Peninsula have exhibited an uncertain and spotty picture—partially due to labor disputes and partially due to other more fundamental problems associated with the area.

### The Outlook for 1956

The outlook for 1956 is generally optimistic—at least for the first half of the year, judging from all indications. This does not overlook some of the uncertain factors discussed earlier—automobile demand, home construction, and the agricultural situation—nor does it overlook the fact that there are current shortages of some basic materials, skilled labor, and monetary funds. The well-publicized current shortage of steel, for example, is causing some delays in the production of appliances and transportation equipment and in major construction projects.

The annual McGraw-Hill survey of business plans for capital investment conducted in October, revealed busi-



ness capital expansion plans in 1956 to be 13 percent greater than in 1955. Included in this expansion program is the scheduled 16 million ton expansion for the steelmakers. It is felt in some quarters that the demand for plant and equipment in 1956 will be a powerful support for continuing prosperity.

Inventories of goods from the manufacturing level through the wholesale and retail levels have been kept surprisingly well in balance during the year in relation to sales. Consequently, there is little in sight to suggest any sort of inventory-inspired recession.

The distinct likelihood of an income tax reduction during the election year offers some possibility of pump-priming—if needed. The exact type of tax reduction and its timing are, of course

unknown, although the reduction itself seems imminent.

The outlook for the latter part of the year is bound to be influenced by the election—to an extent, that prediction would be hazardous or impossible. The political environment can have at least a short-run effect on the economy and upon business expectations depending upon the party, the platform, and the candidates.

The immediate outlook then is one of optimism during the first part of the year, followed by considerable uncertainty the latter part of 1956. The long-range outlook for years ahead, however, is excellent with our constantly expanding population, ever increasing standard of living, and technological advancements.

#### Bank Debits

City	Bank Debits (thousands of \$'s)			Percent Change from Previous Year		
	Sept. '55	Oct. '55	Nov. '55	Sept. '55	Oct. '55	Nov. '55
Adrian .....	22,595	23,423	23,538	+28.9	+23.2	+24.5
Battle Creek .....	71,626	70,260	68,627	+11.5	+10.1	+ 8.9
Bay City .....	52,632	52,296	49,687	+17.3	+13.1	+12.2
Detroit .....	5,901,908	6,235,979	6,565,703	+26.7	+47.3	+41.7
Flint .....	178,845	177,379	176,610	+22.6	+24.4	+26.3
Grand Rapids .....	317,946	313,134	313,098	+15.2	+13.5	+11.0
Jackson .....	92,876	91,742	92,179	+28.0	+25.8	+13.3
Kalamazoo .....	125,246	132,182	131,804	+17.1	+27.3	+19.3
Lansing .....	156,546	146,396	147,763	+31.0	+16.2	+20.0
Muskegon .....	81,290	81,492	76,382	+17.3	+20.4	+10.6
Port Huron .....	40,975	40,772	39,568	+21.8	+23.6	+15.3
Saginaw .....	116,178	118,191	120,595	+16.6	+16.3	+18.8
Escanaba .....	11,374	10,747	10,124	+18.1	+10.7	— 0.3
Marquette .....	12,100	12,813	11,600	+12.1	+27.4	+ 5.7
Sault Ste. Marie .....	11,344	10,515	10,513	— 4.9	— 1.7	—11.3

Source: Federal Reserve Banks of Chicago and Minneapolis

#### Department Store Sales

	September 1955		October 1955		November 1955		Jan. - Nov.	
	Percent Change from Aug. '55	Sept. '54	Sept. '55	Oct. '54	Oct. '55	Nov. '54	'55 vs. '54	'55 vs. '54
Battle Creek .....	+11	+38	+2	+38	+4	+33	+31	
•Detroit .....	+12	+16	+3	+13	+20	+18	+13	
•Flint .....	+1	+17	+2	+14	+11	+15	+13	
•Grand Rapids .....	+14	+6	—3	+7	+20	+9	+4	
•Jackson .....	0	+7	+5	+10	+13	+22	+10	
•Kalamazoo .....	+1	+5	+9	+1	+28	+9	+5	
•Lansing .....	+17	+31	—11	+20	+15	+17	+20	
Muskegon .....	+17	+10	+1	+4	0	+10	+10	
Port Huron .....	+17	+11	—8	+10	+26	+16	+9	
•Saginaw .....	—4	+11	+6	+11	+11	+18	+9	
•Metropolitan Areas								

Source: Federal Reserve Bank of Chicago



**Motor Vehicle  
Factory Sales  
from Plants in U.S.**

	Factory Sales			Percent Change from Previous Year		
	Sept. '55	Oct. '55	Nov. '55	Sept. '55	Oct. '55	Nov. '55
Passenger Cars	467,845	505,177	745,993	+55.4	+128.4	+49.7
Motor Trucks and Buses	92,117	96,079	114,852	+33.6	+44.5	+28.3

Source: Automobile Manufacturers Association

**Electric Sales in  
Kilowatt Hours**

	Thousands of KWH Sales			Percent Change from Previous Year		
	Aug. '55	Sept. '55	Oct. '55	Aug. '55	Sept. '55	Oct. '55
Residential	456,606	474,315	479,641	+11.6	+11.2	+6.9
Commercial	317,228	314,461	307,580	+18.9	+16.1	+13.2
Industrial	938,749	877,793	905,204	+38.9	+30.8	+25.2

Source: Edison Electric Institute

**Non-Farm  
Employment**

	State of Michigan	Detroit Met. Area	Flint	Grand Rapids	Lansing	Saginaw	Upper Peninsula
August 15, 1955	2,524,000	1,408,000	138,100	118,100	78,700	58,400	81,900
Sept. 15, 1955	2,524,000	1,402,000	139,200	117,900	80,200	58,500	82,600
Oct. 15, 1955	2,563,000	1,454,000	129,600	118,900	76,300	58,600	81,900
Nov. 15, 1955	2,616,000	1,479,000	144,900	118,600	82,000	59,400	81,800
Percent Change from Year Ago:							
August 15, 1955	+5.3	+5.6	+7.7	+3.4	+5.2	+4.1	-1.3
Sept. 15, 1955	+8.2	+9.1	+16.4	+3.1	+7.8	+10.8	+0.2
Oct. 15, 1955	+7.2	+9.6	+2.0	+3.1	+3.1	+4.5	+0.6
Nov. 15, 1955	+6.3	+6.9	+8.9	+1.5	+7.9	+4.9	+1.0

**Total Unemployment**

	State of Michigan	Detroit Met. Area	Flint	Grand Rapids	Lansing	Saginaw	Upper Peninsula
August 15, 1955	130,000	91,000	3,200	3,700	2,500	1,000	4,900
Sept. 15, 1955	138,000	101,000	3,600	3,600	2,100	1,000	4,200
Oct. 15, 1955	92,000	45,000	13,500	2,700	5,200	1,000	4,300
Nov. 15, 1955	67,000	35,000	3,200	2,100	1,500	900	5,600
Percent Change from Year Ago:							
August 15, 1955	-44.7	-40.5	-30.4	-51.9	-49.0	-61.5	-45.6
Sept. 15, 1955	-51.9	-48.2	-70.5	-49.3	-56.2	-81.8	-54.3
Oct. 15, 1955	-59.1	-70.0	+170.0	-57.1	+4.0	-54.5	-49.4
Nov. 15, 1955	-59.2	-65.0	+6.7	-57.1	-57.1	-50.0	-39.1

Source: Michigan Employment Security Commission

A little over half of all the furniture and mechanical appliances bought between 1949 and 1951 was financed with credit, says a new study of the Twentieth Century Fund.

## U. S. FAMILIES, 1960 VARIETY

By ARTHUR ROSENBAUM\*

*The future growth of our economy depends so much on the number of mouths to feed that everyone is interested in population growth and makeup. Here is a thought-provoking forecast by an economist of a foremost retail firm.*

The study of population changes has, in recent years, become an indispensable part of the analysis of market trends, and of market projections. When in 1947 the Bureau of the Census published its population forecasts for 5 year intervals to 1975, a 162 million population projection for 1960 was thought to be the highest reasonably possible. We passed this figure last year and by 1960 we shall probably attain the 177 million that was considered somewhat on the high side as a projection for 1975 when made only eight years ago. Between the 1940 and 1950 censuses, the 20 million growth in population was about equal to the combined 1940 populations of Wisconsin, Illinois, Indiana and Michigan. Since 1950 another 13 million have been added, indicating a possible total increase of 26 million, or 17%, for the current intercensal decade. Last year alone the net increase was 1 3/4 %.

These are impressive figures. They indicate rising potential levels of consumption of food, clothing, shelter, furnishings, medical care, in fact goods and services of all kinds, for many, many years ahead. How this potential will be translated into actual sales of

goods and services depends upon our success in maintaining or increasing real income per capita.

Delving further into the individual components of the change in the size of our population, we find that by far the most important, as well as the most dynamic, has been the number of births. Net immigration has contributed only 1 1/2 million in the past 5 years. The death toll has been fairly stable at around 1 1/2 million each year. But births have exceeded 3 1/2 million annually for eight years in succession and in 1954, they passed the 4 million mark.

One cannot help but to be impressed as one contemplates the possible long range effects of this swelling tide of humanity upon our economy; how, beginning in the next decade, our productive potential will advance to new heights as many of these children enter the labor force; how marriages will occur in increasing numbers, and how a new impetus will be furnished to population growth. Today's infant has a much better expectation of fulfilling his productive and reproductive potentialities than had his parents before him.

The most difficult part of a population forecast is, of course, to estimate the number who will be born during the period. This part of the population in 1960 will consist of the children up to six years of age, a group which numbered 22 million in 1954. I would

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\*Mr. Rosenbaum is manager of the Economic Research Department of Sears, Roebuck and Co. The article represents a condensation of an address given before the American Marketing Association in Milwaukee, Wisconsin, June 15, 1955.

venture to guess that 1954, or possibly 1955, will establish a record year for births during this decade, although annual totals will probably continue to exceed 3½ million.

### A Mobile People

Producers and distributors are frequently more concerned with population changes in particular local markets than in the population as a whole, and rightly so. Seen from this aspect, there has been uneven growth in different parts of the country. Fertility rates have been regularly higher in some states and regularly lower in others, but the gain from a net influx of population from other states has been the major factor in the population growth of such states as California, Florida, and Arizona. On the other hand, the net outmigration has been so large as to exceed the increase from natural causes in such states as Mississippi, Arkansas and Oklahoma. There has been a broad movement of the population to the West which was stepped up considerably during the war period and has continued at a slower rate since. This westward migration is demonstrated by the movement of the center of population which moved farther westward from 1940 to 1950 than in any of the 3 preceding decades. The most continuous outward movement has been from the South, with the conspicuous exception of Florida and Texas. The out-flow from the South averaged as much as one third of a million annually. Despite the strides of industrialization, in the 3 years following the 1950 census the net loss to ten southern states from outmigration has averaged over 200,000 per year.

Some of the statistics about the mobility of our population are somewhat startling. Each year, one out of

every five persons moves to a different house. In the 6 years 1946 to 1952, three out of every five had changed residence at least once. From 5 to 5½ million persons have migrated to other states every year since 1950 for the past 4 years. The younger married couples have been the most frequent movers, and a larger proportion of veterans than of non-veterans were among the adult males in search of new homes. The demand for residential construction has stayed above the level expected on the basis of new family formation, partly because additional homes have been required merely to replace those which were vacated and have remained vacant in urban and rural places with population declines.

Although climatic conditions are more attractive in some areas than in others, the basic reason why people move over long distances is economic. People follow jobs and economic opportunity, not the reverse. The effect on the population of farms and rural areas, of the mechanization of agriculture and the development of jobs in industry is an illustration of this principle. From 1940 to 1950, population in urban areas increased by 19.5%; in rural areas by only 7.9%. In North and South Dakota, and in four Southern states, Mississippi, Arkansas, Oklahoma and Texas, where the net decrease in rural population was at least 10%, the urban population of those same states increased at least 25%. The farm population has continued to drift into the cities and towns, shrinking from 16.6% of the population in 1950 to 13.5% in 1954, thus representing a loss of over 3 million persons.

**Suburban Growth:** In addition to the westward movement of the population and the trek to the cities, there is

a third general type of population migration which has occurred within the borders of densely populated areas: the amazing growth of the suburbs which in 162 metropolitan areas increased 35% from 1940 to 1950, compared to a 14.5% increase in the population as a whole. Although suburban populations have grown faster than the nation as a whole since the turn of the century, suburbs had lagged during the thirties. By 1950, almost one quarter of our population was living within the fringe areas surrounding 162 of our cities; population concentrated within these 162 cities constituted an additional one third. The 1950 census will undoubtedly show a larger relative concentration in the suburbs and a slight decline in the proportion living in the cities, but the metropolitan areas as a whole will probably have a larger share of the total population than is the case today.

The growth of suburban living has made for profound changes in market for goods and services. I shall only mention the creation of suburban shopping centers; the greater need for automobile ownership and use; the greater interest in lawns and gardens and in home improvement and decoration, and the greater informality in dress. Better suburban environment for children may also have had something to do with the greater prevalence of larger families.

### **The Infant Market**

In discussing the high level of births during the past 8 years, I touched upon a facet of the study of population change which is of vital interest to all businesses concerned with the needs of infants, young children and teenagers during the rest of this decade. Baby

food, vitamins, baby buggies, toys, playground equipment, school supplies and wearing apparel are among the products which spring to mind. You will recall that an increasing proportion of these births are creating larger families which generate a need for larger homes. Thus one of the results of a high level of births in each of the next five years will be to maintain the demand for residential construction to increase the supply of larger dwelling units. Homebuilders whose faces may have lengthened at the falling marriage rate, even though operating at boom levels currently, can derive some cheer from the high rate of infant output.

For a product or service which is aimed at a specific age group in the population, the most dramatic change in its market will begin with the arrival of the 1947 baby crop into that age bracket. The estimated number of 8 year old children on July 1, 1955, for example, exceeded the number who were 8 years old last year by more than one million, or 38%. By 1960, the forerunners of this onrushing tide will be 13 years old, our elementary schools will be bulging from a 38% higher enrollment than in 1950, while the high schools will be nervously preparing for the onslaught, expected by 1965 almost to double the 1950 enrollment.

In the first half of this decade, youngsters of 5 to 10 increased from 13 to 17 million, a gain of 29%. In the ensuing five years there will be a moderate rise by comparison, of 1½ million or 9%. Boys and girls of 10 to 15 years, who numbered about 11 million in 1950, increased to 13½ million this year. This group will expand more rapidly in the next 5 years to over 17 million, a gain of 29% in the 2nd half as compared to 20% in

the first half of this decade. A significant increase in the yearly total occurred even further back, starting in 1942: the number of those aged 10 to 15 increased 20% from 1950 to 1955. By 1960, these 13½ million youngsters will be 15 to 20 years old, 19% more than we have now in that age group. The 14 to 18 bracket will be 21% larger in 1960 than it is today.

The textile industry, for one, is likely to reap benefits. It costs more to clothe a boy or girl in the 15 to 20 year age group than one 10 to 15, and so on down to the infant. The combined population aged 5 to 20 years will form 28% of the entire population in 1960 compared to 25% this year, and by 1965 this expanding wedge will include working adults and college students in their early twenties.

#### **The Elderly Brackets**

With the exception of two other age groups, those between the ages of 25 to 35, and those over 75, we can make the general statement that all of them will grow with the population. The persons between the ages of 25 to 35 in 1960 will reflect the "hollow" birth period of the late twenties and early thirties.

The growth in the number of persons who reach the age of 65, a sort of landmark since it has been widely accepted in industry as the age of retirement, has been written about frequently the last few years. From 9 million in 1940 to over 12 million in 1950, the number of oldsters has now reached 14 million, and by 1960 there will be nearly 16 million. Striking evidence of the success of modern medicine and of the higher standard of living is afforded by the statistics on population in the age 75 and over

group. In the last half of the forties, this group increased 23%; in the first half of the fifties, there was an additional increase of 17%. There are now over 4½ million persons 75 years of age or older, and by 1960 there will be 5½ million. For the earlier years of retirement, the average person's needs are not very much different than those in the years which immediately preceded. But the needs of the 75 year and over group are considerably changed. A large proportion require regular medical care and supervision.

Although the data from the National Health Survey of 1935-6 pertaining to men aged 75 and over are somewhat out of date, they are perhaps still representative: 81 per 1,000 are likely to have a non-disabling and 21 per 1,000 a disabling orthopedic condition; 33 per 1,000 are likely to be blind in one eye, 13 per 1,000 totally blind; 175 per 1,000 are likely to be partially deaf, 9 per 1,000 totally deaf. Nursing homes, various specialized geriatric services, hearing aids, wheel chairs, and other products catering to this group will enjoy a fairly rapid growth in demand.

The participation of aged workers in the labor force has changed considerably since the war period when labor shortages caused a relaxation of hiring standards. The long-term down trend has been resumed; in March 1955 less than 4% more males age 65 and over were employed than in March 1949, although they were 23% more numerous in 1955 than in 1949, and the relative extent of general unemployment was about the same. The declining importance of agriculture as a source of jobs has played a part, as well as technological changes in industry, and the development of pension systems.

### **Longer Education**

Not only have the older workers been leaving the labor force; but new workers are older on the average due to the trend towards increasing the average period of formal education. In addition large numbers are required to serve in our armed forces. Hence we see a contraction in the male labor force at both ends of the age scale, and that brings us to a fact about the changing composition of the labor force which has considerable significance in the development of markets for labor-saving appliances, food products requiring minimum time and labor to serve, items of apparel which do not have to be ironed after washing, and the like.

### **Women Workers**

Between 1941 and 1944, the number of jobs filled by women increased by over 6 million, or 45%, to replace the men who were drafted into the armed forces and to meet increased production requirements. In that huge new army of working women there were many marginal workers, those who took jobs for patriotic reasons and, of course, a large number of single young women and young wives without children. These did not stay in the labor force for the most part. However, the high employment level, coupled with the reduced labor force participation by males, has resulted in a larger proportion of female jobholders than in any previous peace-time period. In 1940, women represented only 25% of those employed, but in March of 1955, 31% of those with jobs were women. Better than half of all female workers in April 1953 consisted of housewives. Married women with children above pre-school age are

predominant among these, although the Census Bureau estimated that over 2 million mothers of children under 5 were in the labor force in April, 1952.

A study of hours worked by these working wives and mothers in 1953 revealed that although they worked fewer hours on the average than other women, as high as three quarters of them worked at least 35 hours per week. From these facts we get an appreciation of the strong appeal of products stressing the labor-saving angle. We talk about the greater productivity made possible by technological advance in industry. Greater productivity in the home has cut down the domestic work week, permanently adding millions of housewives to our labor potential. Bureau of Labor Statistics experts expect the proportion to continue to rise.

### **Durable Goods Demand**

Demand for housing, home furnishings and appliances, automobiles, utilities, magazines and many other products and services is more closely tied in with the changing number of families or households than with the trend in the population as a whole. From a relatively small increase of only about one half million per year during the thirties, the annual rate of household growth rose to about 600,000 for the period 1940 to 1947, then soared to 1½ million during the three postwar years, April 1947 to April 1950. In the next 4 years, the average annual increase has been about half, or 800,000, and in the next five years of this decade, the most likely average increase will be 600,000 to 700,000.

Households were formed at a faster rate than the increase in population during the last decade but in the four years since the 1950 census, the rela-

tive gain in the number of households was only slightly larger than the gain in population. The next five years may actually see a smaller percent of increase in the number of households than in the number of persons. As applied to consumer spending this means that one of the conditions which were so favorable towards increasing the share of the consumer dollar in behalf of consumer durable goods in the years since the war, will be functioning at reduced strength, and it is likely we will see a relative strengthening of non-durable goods.

The high rate of household formation in the 1947 to 1950 period resulted from an unusually large number of marriages. Since then, marriages have dropped off considerably and this has been reflected in the lower rate of new household formation. But in 1950, many married couples were sharing living quarters with relatives, primarily because of the housing shortage. As the supply of dwelling units became freer many of them moved into separate quarters and this process accounted for over one half million of the gain of 1,800,000 married-couple households from 1950 to 1954.

Except for the minor spurt in the first year of the Korean War, there have been fewer marriages each year since the record 1946 total of 2,300,000. The 1954 total of less than 1½ million was the lowest since 1944. Practically all of the girls who are old enough to get married are already married, and the number of girls who are reaching the age of 18 in the years ahead won't begin to reach sizable proportions until the first half of the sixties. Migration, the need for larger homes, and replacement of substandard housing take on added significance in residential building prospects, for the

proportion of married couples still without living quarters of their own is below normal.

We notice a particularly sharp increase in households headed by persons living alone or with unrelated persons. The average annual increase in such households, 300,000, from 1950 to 1954 was 1½ times as large as during the period 1947 to 1950, and 3 times as large as during the period 1940 to 1947.

To explain this remarkable increase in non-family households, we note that female non-family households increased 32% from April 1950 to 1954, compared to 14% for male non-family households. While childless wives of servicemen may account for some of this increase, the real explanation is the mounting number of widows and divorcees who are 55 years of age and over; with little prospect of remarriage, these women prefer to continue housekeeping. A large proportion are employed, and more commonly than in the past, they frequently have other independent sources of income such as pensions and insurance. Here, then, is a second large group in our population to whom the economy of effort featured by modern household appliances is more of a necessity than a luxury. And this group, too, will expand at a more rapid rate than other households.

#### Buying Power Growth

One of the fundamental factors affecting consumer markets is the rise in per capita purchasing power. Real income per family increased by one-tenth both on a before-and-after-tax basis, from 1947 to 1953. Not only did the average income rise but the distribution of this income has broadened. In 1947, the middle 60% of



families, ranked by size of income, received 49% of the total family personal income prior to Federal income taxes. In 1951, 1952, and 1953 they received 50% of pre-tax income. Average income per family was \$6,000 in 1953 compared to \$5,000 in 1950 and \$4,000 in 1944. The population en masse, and not merely the fortunate upper classes, is not only getting more income in dollars, but more per capita real income enabling the average individual to satisfy more of his needs and wants than ever before.

The key to the long term rise in our standard of living is the rise in productivity. Our total productive capacity has outpaced the growth in population. The sharing of the benefits of this increased productivity through higher real wages and lower real prices is the basis of the rise in the general standard of living. It is reasonable to believe that the expansion of markets resulting from the general prospering of the population is a stimulation to greater achievement in raising industrial productivity.

The common assumption in economic projections for 1960 is for a continued increase in output per man-hour. Research expenditures have grown over the past 10 years from about one billion dollars per year to over three billion dollars and the results will not have their maximum effect on the pattern of industrial production until the next few years. Economists have projected models of the economy in 1960 indicating a rise from 1954 to 1960 of between 15% and 20% in disposable personal income per capita in 1954 dollars. The United States Chamber of Commerce, somewhat more conservatively, has estimated the gain in real per capita spendable income at about 5% in the

same period. The implication of this trend in higher income per capita, coupled with the 9% increase in population, is that by the end of this decade disposable income in 1954 dollars will increase at least 13%, and perhaps as much as 25% over 1954. The rewards of increased productivity have not been confined to the material things in life but have resulted in a partial release from daily toil. Eight-hour work days, the two-day week end, paid holidays and two-week vacations have become the common prerogative of the American worker.

Increased leisure, with more spending money, automobiles and owned homes has filled our highways and resorts with vacationing tourists and has stimulated sales of paint, lumber, power tools, garden supplies and equipment to a public appreciative, as never before, of the spiritual satisfaction of beautiful homes and neighborhoods. The cultural maturing of the population is already having a detectable influence in textiles, and design of household furniture, house furnishings and consumer products of all kinds.

The demand of organized labor for a shorter work week is based not so much upon the desire for greater leisure as upon the fear of displacement of workers from their jobs by labor-saving processes and equipment. But as investment in capital equipment becomes greater, the need for its full utilization becomes more pressing.

Thus the trend towards a shorter work week may be accompanied by a trend towards standardization of the two-shift operation. This, in turn, may result in problems of excess capacity in some industries requiring greater and greater effort in disposing of industry's output.

### Conclusion

There is no magic in either long range projections or in numbers of people. We will achieve this high level of economic activity only if we keep certain fundamentals clearly to the fore. We must continue to strive for

a political-economic climate that creates incentive for investment. There must be a constant striving to develop new products; to improve upon and reduce the cost of making existing products; to lower distribution costs of all goods.

## OPERATION BOOTSTRAPS

Just about now a new plant is due to open in the small and pretty town of Colon, halfway between Coldwater and Three Rivers. There is more to this piece of news than meets the eye. Colon has long been a place where one or two local industries were all that kept the community part of the economic life of the state. A good place to retire, but not all the population was ready to retire. Many young or ambitious people, not finding employment, left for greener pastures.

The fact that the picture is changing is due largely to the right person in the right job. Margaret Trayling, an energetic councilwoman, was made Chairman of Industrial Promotion, and promoted with such vigor that the presence of a new firm may justly be credited to her efforts. It was she who persuaded the officials of the new company that Colon had everything they wanted: a good location near the main routes between Chicago and Detroit, a railroad (the Michigan Central), ample water, with a new deep well to supplement the old one, adequate electrical power, through the cooperation of the Industrial Development Department of Consumers Power, and a labor supply of long-established residents.

Drawn by the attractions so vigorously presented by Mrs. Trayling, the new company has chosen to establish

itself in Colon, and is known as the Colmar Company. It will engage, as subcontractor, in general manufacturing. Fifty people will find full-time employment with the firm.

Less than fifteen miles away is Mendon, with a population of about 1,000. It is situated directly on Michigan 60, the best route between Chicago and Detroit, and on the Pennsylvania Railroad, with four trains a day. It also has two deep wells, one of them new, and a new filtration plant, while all the streets have been recently blacktopped. Among its assets is a fine and picturesque hotel of gracious proportions and historical acclaim. This has recently been put back into service, with a dining room equally notable for its old-time beauty and its memorable new-time dinners. Next to the hotel is what must surely be one of the country's handsomest motels: almost certainly the only one to include a covered bridge among its landscaped surroundings.

For all its advantages, Mendon has had hard luck, never having recovered from the disastrous fire that wiped out the plant of the Essex Wire Company one bitter cold November night in 1953. The industry, a mainstay of the town, did not rebuild there. Mendon would seem to offer definite attractions to industry, and the village President, Gordon Arnold, and his board are ex-

trremely eager to get back into the mainstream of the state's economic life. They feel, with justice, that their town is very favorably located as regards transportation and availability, especially in view of the prospective turnpike.

How does a town in this situation pull itself up by its bootstraps? There are agencies devoted entirely or in part to helping them. Foremost is the Department of Economic Development of the state, which is designed to serve as liaison between the community and whatever state or national agency can be of service to it. Should a town have possible mineral resources that might be exploited, for instance, the Department will refer it to the state's geologists, and so on for other services. If a business is looking for a community with certain specifications, it can find such a town through the Department. Similar services are offered by the railroads and utilities for the areas they serve. For an extremely helpful manual, see *Let's Face It: A Practical Manual for Community Action*, available from the Industrial Development Department of Consumers Power Company, Jackson. Frequently the chamber of commerce

of a nearby city, aware that the economic health of the outlying areas means business to the city itself, will direct new manufacturing plants to these neighboring locations.

A fairly new development of great promise is the county chamber of commerce now operating in several parts of Michigan. Iron and Cheboygan Counties each has one; the most signally successful thus far is that in Hillsdale County, which has attracted five new manufacturing plants.

It seems apparent that the largest single factor in this type of economic uplift is the presence of a person who is able and willing to devote a great deal of time to making and maintaining contacts with both bureaus and manufacturers. A flash of civic pride at the right time may turn the trick, as in the case of Montague\*, but it is more likely to be a sustained effort by a village official, such as Colon's determined councilwoman.

ANNE C. GARRISON

\*"Montague: Michigan's \$30,000,000 Chemical Empire of the Future", by Anne C. Garrison, *Business Topics*, June 1954, pp. 9-18.

*Business Topics* would like to call its readers' attention to an invaluable book: *America's Needs and Resources: A New Survey*, by J. Frederic Dewhurst and associates. It is published at \$10 by the Twentieth Century Fund, an endowed foundation for research and public education on economic and social problems, founded by the late Edward A. Filene of Boston in 1919. It may be ordered from the Fund (330 W. 42nd St., New York 36, N.Y.), or through your bookstore. The volume is a comprehensive survey of the entire American economy in action, measuring our resources against our needs, with projections to 1960. We would call it fascinating pick-up reading except that the book is an extremely hefty quarto. Once you have it opened and propped against a sturdy oak tree, however, we'll bet you'll stay with it a long time. Be the first in your block to know the average income of Protestant ministers, or how many married women had paid employment in 1850 and 1950. Incidentally, did you know that nearly half of our public elementary schools were still one-room ones in 1950? They were attended by only 5 per cent of the pupils.

# INCOME TAX SAVINGS FOR YOUR FAMILY

By CECIL R. UPHAM\*

*Were you robbed of jewels last year to the extent of \$9,000 after insurance? Even if you weren't, there is invaluable help for you here. Be sure to read this before April 15.*

## U. S. Savings Bonds

Joe and Ann have a daughter, Martha. Assume she has no income, and they buy bonds in her name. She can file a tax return and report the interest earned each year. If the interest income is under \$675, no tax is due. The value of the bonds is increased without the payment of income taxes. But if Martha had other income, it probably would save taxes to have her report the interest on these bonds each year. If other income plus interest on government bonds exceeded \$675, income tax would be due, but the tax would be in the lowest brackets and the parents would not necessarily lose her as a dependent. She would still be a dependent if the parents furnish more than one-half of her support and she is under 19, or if older, she is attending school. However, she should not report the interest each year if it means the loss of the dependency deduction. Parents should weigh the loss of the dependency deduction against the tax benefits from reporting interest income each year. Generally, the retention of the dependency deduction will result in greater family tax savings than the reporting of interest income currently.

## Gifts of Income-Producing Property

Taxes can be reduced on income-producing property providing the donor

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executes a bona-fide gift and relinquishes complete control over the property. If the donee is a child, he or she may not be of age to handle the property, in which case a fiduciary can be appointed for the child. To avoid the appointment of a fiduciary, the gift should be in the form of property that does not require management to handle and which can be transferred by a minor, such as U. S. Savings Bonds and other registered bonds. Mutual fund shares can be transferred and registered in the name of the minor and the problem of management is minimized. The investment trust provides the supervision. It decides how the money received shall be invested and how the dividends received by the mutual fund shall be reinvested.

## Joint Return of Husband and Wife

Joint return of husband and wife will not always produce lowest tax liability. For example, separate returns can save money where both spouses have capital losses or capital loss carryovers, and where one spouse has a casualty loss and the other a profit from the sale of depreciable property.

*Example*—Husband's gross income amounts to \$9,000 (salary, interest, dividends, etc.) and Wife earns \$7,000. In addition H has sustained a net capital loss of \$1,400 and W has a net capital loss of \$1,200. If they file a joint return their combined adjusted

gross income would be \$15,000 ( $\$9,000 + \$7,000 - \$1,000$ ). The unused capital loss of \$1,600 ( $\$2,600 - \$1,000$ ) could be carried forward for the next five years. If they file separate returns their adjusted gross incomes would be: \$8,000 for H ( $\$9,000 - \$1,000$ ); and \$6,000 for W ( $\$7,000 - \$1,000$ ). The unused net capital losses of \$400 for H and \$200 for W can be carried over by each for the next five years.

If each spouse has a net capital loss carry-over from prior years where separate returns were filed, the deduction in the following year is limited to \$1,000 on a joint return. If separate returns are filed each spouse can deduct \$1,000 from his or her income.

*Example*—Husband's gross income amounts to \$10,000 in 1955 and the wife earns \$6,000. Neither has capital gains or losses in 1955, but each has a net capital loss carry-over from 1954 of \$4,000 when separate returns were filed. If H and W were to file a joint return in 1955 their combined adjusted gross income would be \$15,000 ( $\$10,000 + \$6,000 - \$1,000$ ). By filing separate returns their adjusted gross incomes would be: \$9,000 for H ( $\$10,000 - \$1,000$ ) and \$5,000 for W ( $\$6,000 - \$1,000$ ).

The advantage of filing separate returns in one year when both spouses have net capital losses may prove to be a disadvantage in the following year.

*Example*—Husband's gross income for 1955 is \$9,000 and the wife earns \$7,000. H has a net capital loss of \$1,400 and W \$1,200. Early in 1956 it becomes apparent that H will have a short term capital gain of \$3,000 with no capital losses to offset it. If a

joint return is filed in 1955, the net capital loss carry-over to 1956 to apply against the 1956 net short term capital gain is \$1,600. If separate returns are filed there will be only \$600 to apply against this gain. The savings in 1956 will probably more than offset the higher tax on the 1955 separate returns.

If one spouse has a gain from the sale of depreciable property used in his business and the other spouse suffers a casualty loss, it might be cheaper to file separate returns than to use the joint form.

*Example*—The husband operates a business. The net income from this business in 1955 was \$32,000, exclusive of a profit of \$12,000 resulting from the sale of a machine used in his business for more than six months. The wife's net income amounted to \$22,000 exclusive of a loss on some jewelry that had been stolen during the year. The jewelry had been in her possession more than six months prior to the loss. The loss (after collecting the insurance) was \$9,000. If they file a joint return they pay tax on ordinary income of \$54,000. (The tax is figured on one-half of the ordinary income and doubled). In addition they would pay the capital gains tax of 25% on \$3,000 (the \$12,000 gain on the machine less the \$9,000 casualty loss). If they file separate returns, the husband pays on ordinary income of \$32,000 and the wife pays on ordinary income of \$13,000 (\$22,000 less casualty loss of \$9,000). In addition H pays 25% on the net profit of \$12,000 from the sale of the machine. By filing separately they get the full benefit of the 25% capital gain tax on the sale of the machine and the casualty loss becomes fully deduc-

tible. The saving in income taxes by this procedure is indicated below.

	Husband	Wife	Jointly
Ordinary income	\$32,000.	\$22,000.	\$54,000.
Gain on Sale of Machine	12,000.		
Casualty loss		(9,000.)	
Net capital gain			3,000.
Net Income	\$44,000.	\$13,000.	\$ 57,000.
Ordinary Income	\$32,000.	\$13,000.	\$54,000.
Standard deduction and exemption	1,100.	1,100.	2,200.
Tax Base	\$30,900.	\$11,900.	\$51,800.
Tax on \$30,900.	\$13,778.		
25% of \$12,000.	3,000.		
Total Tax	\$16,778.		
Tax on \$11,900.		\$ 3,362.	
½ for married man filing joint return			\$25,900.
Tax on \$25,900, doubled amounts to			\$21,362.
25% of \$3,000.			750.
Total tax on joint return			\$22,112.
Total tax by filing separate returns			20,140.
Savings			\$ 1,972

### Joint Return—Medical Expenses

If one spouse has high medical expenses during the year, separate returns may be advantageous.

*Example*—The husband earns \$5,600 and has \$400 itemized deductions (none for medical expenses). The wife earns \$4,200 and has \$1,500 medical expenses and no other deductions. If they file a joint return, the medical expense deduction would amount to \$1,206 (\$1,500 less 3% of their combined earnings of \$9,800). If separate returns are filed the 3% is based upon the earnings of each. The wife could deduct in this case \$1,374 (\$1,500 less 3% of \$4,200).

### Joint Return—Other Considerations

There are other conditions where married couples may not wish to file a joint return. The combined income with their exemptions is too low to give any savings from income splitting. One

spouse may be unwilling to disclose all items of income and deductions to the other spouse. One spouse may not wish to assume the tax liability for the other spouse. In filing a joint return one spouse can be called upon to pay the entire tax shown on the joint return. Each spouse is liable for the entire tax.

### Joint Return—Standard Deduction

It is also essential in filing separate returns that the correct tax form be used. Ordinarily a single person may use the standard deduction which is 10% of adjusted gross income or \$1,000, whichever is less. But if taxpayer is married and separate returns are filed, the standard deduction is reduced to a maximum of \$500 per return.

*Example*—Husband has adjusted gross income of \$5,000 and itemized deductions of \$1,000 and the wife has adjusted gross income of \$2,000 with no itemized deductions. The wife wishes to file separately. She computes her tax from the short form table which allows her the standard deduction of \$200. The husband cannot use his actual itemized deductions in filing his return. He must also use the standard deduction which is \$500. The family has lost \$300 in deductions by the wife electing to file separately and take the standard deduction. It should also be pointed out that on separate returns each spouse may deduct only those expenses for which he or she is liable even if one spouse pays the expenses for the other spouse. If property is owned by the wife, then the interest and taxes are her deductions and not those of the husband. If the husband pays these expenses, neither husband nor wife can deduct them on separate returns. The husband cannot deduct them because they were not his liability

and the wife cannot deduct them because she didn't pay them. This would also be true of interest on a personal loan of the wife.

#### **Widow or Widower with Dependent Child**

Income splitting is allowed, other than on the joint return of married people, only in one case. For the first two taxable years after the taxable year in which his or her spouse dies, a widow or widower may secure the same benefits of full income splitting as in the case of a joint return if he or she has in the home a son or daughter (including stepchildren) who qualifies as a dependent and who is a member of the household. This benefit will be lost to the surviving spouse if he or she is remarried within the two year period or the wage earner's return is filed instead of the conventional Short or Long Form 1040.

#### **Head of Household Qualification**

If income splitting is not available to the surviving spouse, he or she may qualify as the "head of a household" which permits the use of a special tax table. This table provides about half the advantage that a married couple gets on a joint return. To qualify for the use of the special tax table the following four conditions must be met:

(1) You must be an unmarried person and not a "surviving spouse". You are considered unmarried for this purpose if (a) you have never been married or (b) you are a widow or widower whose spouse died prior to the taxable year, or (c) you are separated from your spouse under a decree of divorce or separate maintenance, or (d) your spouse is a non-resident alien.

(2) You maintained a household for yourself and it was the main home of

at least one of the following: your child or grandchild (including a stepchild or an adopted child) who was not married on the last day of the year; any relative you can claim as a dependent, including a married child or grandchild. Where you maintain a household for a married child and his unmarried child, you qualify as the head of the household even though the married child is not your dependent. You are maintaining a household for an unmarried grandchild. The household must be your home and the main residence of one of those listed above for the entire taxable year. A recent decision of the Treasury Department held that a serviceman who supports his illegitimate child cannot be a head of a household unless the child lives in the same house with him. However, there is a special rule if you are supporting your parents. As long as you maintain the household in which they live, it need not be your own home.

(3) You must contribute over half of the cost of maintaining the home. The costs of maintaining a household include: Property taxes, mortgage interest, rent, utility charges, upkeep and repairs, property insurance and food consumed on the premises. Not included among the costs of maintaining a household are: clothing, education costs, medical expenses, vacation costs, life insurance premiums, and transportation costs.

(4) You must not be a non-resident alien at any time during the year.

#### **Dependent's Gross Income Under \$600**

Gross income means the amount that must be includible in gross income on the dependent's tax return. It does not include items that are specifically excluded such as social security benefits,



certain military pay and allowances, gifts and insurance proceeds. If the dependent has a long-term capital gain, the whole gain constitutes the amount of gross income for the dependency test.

*Example:* Jones gave his sister \$2,400 for her support in 1955. She had no other income during the year except a profit of \$1,100 on some securities that she sold that had been held for five years. The \$1,100 constitutes her gross income even though she reduces this 50% in determining her taxable income for the year. Jones cannot claim her as his dependent even though he furnished more than one-half of her support.

*Example:* Sam Sneed owns a two family duplex. He lives in one apartment and rents the other for \$70 per month. His gross income is \$840 for the year but after deducting depreciation, insurances, taxes and upkeep expenses his net income is \$300. Roger Sneed (the son) cannot claim his father as a dependent even though he contributes more than 50% of his support.

*Example:* Arthur Graham received \$900 in 1955 for disabilities incurred while in military service. This money is not includible in gross income. The father, William Graham, contributed \$1,200 towards the support of his son. The father is entitled to the \$600 deduction since the amount received by the son is not includible gross income.

*Example:* Ole Olson received \$1,200 in social security benefits in 1955, which money was used to support himself. The son, Gene Olsen, contributed \$900 towards the support of his father. The son would not be entitled to the exemption deduction because he did not contribute more than one-half of his support.

#### **Exemption Deduction Available When Dependent Files a Tax Return**

If the dependent earns less than \$600 during the year and income taxes have been withheld at source on the earnings, a refund of the taxes withheld is available by filing the regulation Form 1040A or Form 1040. The specific purpose of filing the return in such a case is to serve as a claim for refund of taxes withheld. The taxpayer is still entitled to the exemption deduction of \$600 if there was actual support. This rule does not apply to a spouse who earns less than \$600. If she files a tax return for refund of withholding taxes, the husband loses her as an exemption deduction.

#### **Gross Income in Excess of \$600 Where Dependent is Your Child**

If your child is under 19, or of any age if he is a student, the dependency deduction is available even though the gross income is in excess of \$600. A student is one who attends a recognized educational institution and is pursuing a full time course. A recognized educational institution is one that employs a regular faculty, has established courses, and an organized student body. This would include: primary and secondary schools, preparatory schools, colleges, universities, technical and mechanical schools and normal schools. It does not include correspondence schools, job-training schools and night schools. A full time course has been defined as following a full curriculum for at least five calendar months of the tax year. The five calendar months do not have to run consecutively. If the child's income is substantial, the taxpayer must be certain that he contributes more than one-half of the child's support. Assume your son receives an

annual dividend of \$1,800 on stock left him by an uncle. If this amount is deposited in the bank or otherwise reinvested and none of it used for his support, the dependency deduction of \$600 is still available to the father.

### **Medical Expense Deduction for Your Family and Dependents**

This deduction is available to the person who pays the bill. It is available in the year in which it is paid regardless of when the expense was incurred. The family relationship can exist either at the time the expense was incurred or at the time of actual payment. The deduction can be used even though your relative was not related to you when the expense was incurred or has since died, divorced or otherwise been separated from you.

*Example:* Ward Fox's mother had an operation in October 1954. Ward paid for the operation February 20, 1955. Ward furnished less than one-half of his mother's support in 1954 but furnished more than one-half in 1955. The cost of the operation is a medical deduction for Ward in 1955; even though Ward furnished more than one-half of his mother's support in 1954 and less than one-half in 1955, he can still claim the medical deduction in 1955.

*Example:* Ward's wife incurred medical bills covering an operation in 1954 before they were married. They were married in 1955 and Ward paid those bills in 1955 after marriage. He is entitled to the medical expense deduction in 1955.

*Example:* In October 1954 Mrs. Sam Jones had dental work done. In March 1955 a divorce was secured. In June 1955 the dental bill incurred in 1954 is paid by Mr. Jones. He is entitled to the medical expense deduction.

A medical deduction is also available to the taxpayer even though he is not entitled to the dependency deduction because the relative's gross income exceeds \$600. The only requirement in this case is support. If you furnish more than one-half of his support, regardless of his gross income, you can claim a medical deduction for the medical expenses paid for him.

### **Child Care Deduction**

This deduction is available for a maid, housekeeper, baby-sitter or anyone else you pay in order for you to get a job, keep a job or to be self-employed. The deduction is limited to \$600 regardless of the number of children you have. The deduction is limited to: (a) a widow or widower, (b) unmarried person divorced or legally separated from husband or wife and (c) married woman who files a joint return with her husband. In the later situation the amount of the child-care deduction is reduced when the combined adjusted gross income is over \$4,500. If the combined adjusted gross income is in excess of \$5,100 there will be no deduction available for child-care. If the combined adjusted gross income is \$4,700 and you paid your baby-sitter \$600 to care for your children during the year, the limit of deductibility would be \$400. (\$600—\$200). The regulations require that a joint return be filed and also that you do not use the standard deduction.

Under this deduction the amount spent for child care is limited to a son, daughter, adopted child or a step-child who is under 12; or any dependent who is mentally or physically incapable of caring for himself. The money spent is not restricted to children. If you have in your home a physically handicapped mother or father and make payments

to care for them so you can work, such payments are deductible. You may also pay a relative to take care of your child providing you do not claim the relative as an exemption deduction on your return. This provision is to prevent the use of the payment you make for child-care expenses as a contribution to the support of a close relative.

If you work only part time, then only part of the child-care expense is deductible.

*Example:* Suppose you place your child in a nursery school at \$50 per month and work only two months during the year. Your deduction for child-care would be limited to \$100. If you worked one-half of each month throughout the year, the limit of deductibility would be \$300 (\$25 per month) or if your job is a part time job and you worked only one-half of each day, the deduction for child-care would be limited to \$300 (\$25 per month).

If you hire an individual to come into your home and do something besides caring for the children, the amount of your payment must be divided between child-care and other duties.

*Example:* Mrs. Foster employs a maid to care for her two children, ages 4 and 13. The maid also does the cleaning and the cooking. One-half of the maid's time is spent looking after the children. Mrs. Foster pays the maid \$30 per week or \$1,560 per year. Mrs. Foster was employed the entire year. One-half of the payment (\$780) must be allocated to child-care and since this is in excess of the maximum permitted (\$600) the deduction for child-care will be \$600. The fact that one child is over 12 is immaterial. The amount allocated to child-care does not have to be divided between children under 12 and those over 12 years of age.

### **Donations of Property as Contributions**

Gifts to organizations or funds operated for religious, charitable, scientific, literary or educational purposes need not be in the form of cash. Property gifts are deductible at their fair market value. If the fair market value of the property you propose to donate is above your cost, the best procedure is to donate the property and thus avoid the capital gains tax on the sale. However, if the fair market value is below your cost, the best procedure is to sell the property, take the loss, and donate the cash proceeds. It should be remembered that you cannot get a deductible loss by making a gift of property.

*Example:* Peter Lynn owns securities which cost him \$23,000 in 1951. The fair market value of these securities in 1955 at the time he proposes to donate them to his favorite charity is \$6,000. A donation of these securities would give him a maximum contribution deduction of \$6,000. But if he sold the securities in the market, he would have a long term capital loss deduction of \$17,000 and then could make a cash donation of \$6,000. The limit of deduction for the long term capital loss, in the absence of any other capital transactions, would be \$1,000 against other income for the year 1955.

*Example:* Suppose Peter Lynn paid \$6,000 for the securities in 1951 and in 1955 when he proposes to donate them to charity they are worth in the market \$23,000. By donating these securities to charity he escapes the tax on the unrealized profit and can get a charitable deduction of \$23,000. The higher the level of your income the greater is your saving. Also the greater your "paper" profit, the greater is the saving to you by donating appreciated securities rather than cash.

## Do You Know These Michigan Towns?

1. According to legend, an Indian chief friendly to white settlers ran many miles to warn them of an impending attack, and died of the exertion. The settlers named their town after him. For a long time it was one of the three land offices in the state, and the only village on the military road between Detroit and Chicago.

2. And speaking of land offices, what were the other two mentioned above?

3. Named for a Roman emperor, this town was once seriously considered for capital of the state.

4. If you can still bear the thought of holiday cookery, you may be interested in this community's leading industry: the raising of ducks. More ducks reach the dinner table from here than from any place else in the country.

5. Once notorious as the site of Michigan's only lynching, this town can claim a glaciological distinction and a conservational one. It is situated on the country's largest esker, or glacial hogback, and the country's first experimental farm for the breeding of game birds is situated nearby.

6. Blizzard-bound travellers in this town were once forced to subsist on pancakes for days. This gave rise to a commemorative annual eating at a Pancake Festival.

(Answers on page 36)

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### ATTENTION SPECULATORS AND KALAMAZOO RESIDENTS!

The following cagy observation is from the journal of a German traveller who visited our state in 1835. (Karl Neihardt, *Reise Nach Michigan*, translated by Frank B. Braun, *Michigan History*, v. 35, 1951, pp. 32-84): There is no better way of investing money than by buying government land in the best sections of Kalamazoo and letting it lie. Those with enough vision to recognize ahead of time the sites best suited for the founding of future cities can establish the prosperity of their families for generations.

Should the article on paper manufacture inspire you to start a mill of your own, see the excellent booklet published in October by the Michigan Department of Economic Development, (Lansing): *What You Should Know About Michigan as a Location for Pulp and Paper Mills*.

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Truck haulage is of the greatest transport importance to farmers in the United States: nearly 90 per cent of their produce is trucked directly to initial markets and the rest is trucked by middlemen to railroads and docks for shipment to other points for grading, packing, processing and storing, notes a new study of the Twentieth Century Fund.

## IT'S A PAPER WORLD

By ANNE C. GARRISON\*

*Number 14 in our series of Michigan industrial articles is the only one printed on the product it describes.*

The printing press itself did not perform the revolution: paper played scarcely less important a part . . . A paper world came into existence . . . Paper had a unique part to play in the development of industrialism. Lewis Mumford, *Technics and Civilization*, Harcourt, Brace, and Company, New York, 1934, p. 137. By permission of the publisher.

Just for once let's enter Michigan by way of Utah, or rather by means of an illustration from the Utah desert. We had been driving for fifty miles through as arid and uninhabited a region as the West affords. No trees, no grass, no water, no people, nothing but sagebrush and empty sky. The town came upon us as a surprise—not suddenly, for its thin line of cottowoods along the creek, its houses and a single industrial building were visible miles away. But the shock was as of something sudden; here, hours from the nearest timber, was a pulp mill, complete with logs floating in a pond. It looked like a small slice of Ontario transported to the arid West by a giant with a sense of humor.

What has this to do with Kalamazoo and the paper industry? It is the most dramatic instance of a basic fact, that paper depends more upon an abundant water supply than upon a convenient source of wood. After all, at one point in its manufacture, scarcely 1% is anything but water; hence it is cheaper to bring the wood to the water than vice versa. So it is that the history of the

development of this industry throughout the country has been one of the economic development of river valleys. Paper moved West with the civilization it helped to create. The chief concentration of its manufacture has been in three areas: the Connecticut River valley, the Miami River valley in Ohio, and our own Kalamazoo River valley. It is chiefly this region, taking in a twenty-five mile circle to include Vicksburg, Otsego, etc., that makes Michigan the nation's second largest producer of paper in terms of tons, exceeded only by New York. According to the latest figures, New York has a daily output of 7,186 tons, Michigan of 6,784. Throughout the country a whopping 27 million tons are produced yearly.

*Back to the Forest.* One of the pleasantest things about paper in the Kalamazoo valley is that the odorous stages of its manufacture have taken place hundreds of miles away. Many people's memories of paper manufacturing go back to the days when this was not so. They would be pleasantly surprised to find the choking acidulous steamy breezes that surrounded the mills they recall are things of the past, at least in the favored region we are discussing. Indeed the pulp industry, strictly speaking, has never been located in Southwest Michigan at all. In the forest of the Northwest, or Wisconsin, the Upper Peninsula or Ontario, are located the mills that undertake the primary stage of manufacture. These need concern

\*Mrs. Garrison is Associate Editor of *Business Topics*.



*Paper story in a single picture: The Kalamazoo River and the industry it makes possible. Water for KVP at Parchment.*

us little. They involve scientific farming and selecting of forest trees, 90% of them evergreens, and cutting, chipping or grinding the wood in preparation for its treatment, by chemical or mechanical means, to reduce it to fiber. One half of the content of a given piece of wood consist of this cellulose fiber, but the rest, a colloidal binder called lignin, and various sugars, gums, resins and mineral salts, must be washed or digested away. Sulphite, soda and sulphate are the chemicals involved. To simplify a really complex process, we can say that it involves turning the wood fibers ( $1/25$  to  $1/5$  of an inch long) into a dense interlocking mat, a crude paper. In this form, baled in 400-lb. packages, the product of distant forests reaches Kalamazoo.

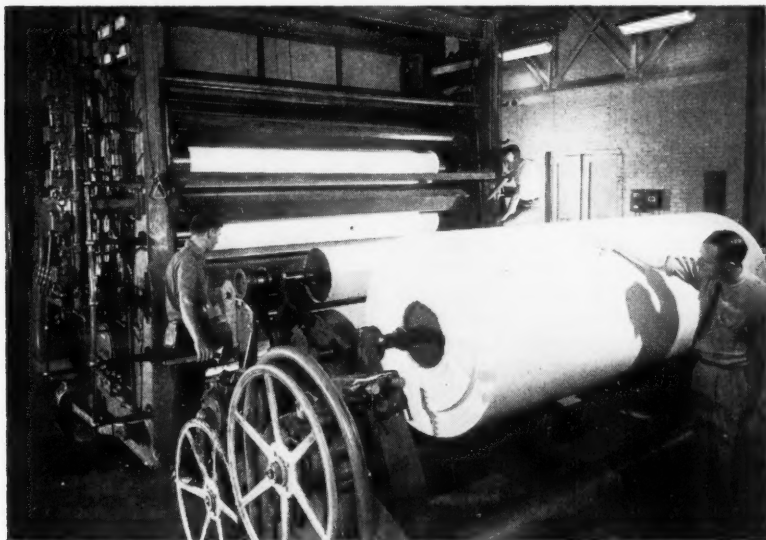
*You Name It, We Make It.* We are now dealing with the *manufacturing* process as such. The papermaker can be conceived as an experienced cook who knows his raw ingredients and their characteristics, and wants to turn out a dish to suit a particular diner. To limit our attention for a moment, consider problems in carton-making that might be undertaken by the Sutherland Paper Company. A client wants a carton paper that will resist damp, take a nice five-color print on the outside but need not be handsome on the inside, and will resist cracking and tearing. Such a carton as this is demanded in the packaging of detergent. Or a customer wants carton paper that looks nice on both sides and can withstand grease. Or he needs a large plain pack-

ing carton that will hold up on an ocean voyage. Like a good cook, the paper maker can pick and blend his ingredients, confident of coming up with the required product.

Depending upon the quality and type of paper or paperboard demanded, the manufacturer varies his proportions of pulp paper, waste paper and rag (the latter used in fine letter paper and bond, chiefly). These ingredients are thrown into a huge vat called a beater, which takes them completely apart again. Just as the digestive tract can take a complete protein, digest it down to its component amino-acids and rebuild it into an almost identical protein, so the beater breaks down paper into pulp in order to make a different paper out of it. The Kalamazoo River figures largely in this stage, for once again the pulp consists of 99% water. (Paper mills, once guilty of so much stream

defilement, are now able to return water to the river cleaner than they took it out, by modern methods of filtering and settling). In addition to water, there may be various colors added, or sizing, or fillers such as starch or clay. It all depends upon what the final product is to be. One pulp is left entirely free of additions: this is *waterleaf*, which is to be made into vegetable parchment like the famous KVP product. At the end of the refining process the pulp is a very thin soup indeed.

Screening, the next stage, is essentially what it has been since the invention of paper in 105 A.D. by a Chinese: pouring of pulp upon a fine screen (Tai Lun used cloth instead of wire) and shaking it gently, so that the fibers interlock as the water drains away. Nowadays the screen has become a moving endless wire belt, up to 25 feet wide, travelling as fast as half a mile



3,000 pounds of fine writing paper coming off the machine at Lee Paper Company.



a minute. Sidewise motion is imparted to it to promote interlocking. The immense machine on which this screening is done is called a Fourdrinier, after its inventor. It has not changed in principle in 150 years. For the sake of simplicity, no mention is made of the other type of machine, the cylinder, which is able to make paperboard in layers. The Fourdrinier can make only one single solid sheet. The products of the two machines have different advantages.

As the paper travels it loses water. Upon reaching the press rolls it is only 80% liquid. These rolls are covered with heavy blanket-wool belts that squeeze out an additional 15% of moisture. Drying and gaining strength, the paper can now travel alone, and is run through a series of driers that also polish and refine one or both sides of it as desired. Soon it has only 6% moisture instead of almost 100%, and has reached the average moisture content of dry paper. The end product of a typical manufacturing process, this paper stands ready for use in a mammoth 3,000 lb. roll. For ease in handling such rolls are cut into "mill rolls", and proceed to the process of *conversion*. At the comparable point in the paperboard manufacturing process, the board is ready for handling in large sheets.

*Conversion.* Few of us ever feel the need for a 3,000 lb. roll of kraft paper, or even a mill roll, or a pallet-load of three-layer pulpboard. In other words, we seldom see paper until it has gone through a long drawn-out processing. This may be carried out by an independent company or by the manufacturer himself, but it is a distinct operation apart from paper making. It may consist of one or more of the following processes:

1) Mechanical cutting, folding, and fitting of containers;

2) Coating or saturating for decoration or protection;

3) Combining of layers;

4) Crimping or embossing, as in paper napkins or insulating board.

An additional important process, printing, can take place before or during cutting, or at other stages. Printing, as used here, does not mean book or newsprint, but labels, cartons, boxes and containers of all sorts, as well as paper napkins, table covers, plates and drinking cups.

As opposed to the stable equipment and circumstances of paper manufacturing (after 150 years of adaptation of his drying screen, Fourdrinier would still be able to recognize the one used today) conversion is an actively changing field, requiring less complex and expensive machinery and less working capital. It follows that it is highly competitive and the subject of intense research, experimentation and adaptation.

### **Kalamazoo's Place in the World of Paper**

The river valley, rather than the city, is the area to be considered, since it is the water supply that establishes the industry. On this geographical basis, the Kalamazoo valley is the fourth in the state to be developed. As would be expected, the manufacture of paper moved westward with the settlement of the state, starting at Raisinville just west of Monroe in 1834. From the valley of the River Raisin it proceeded to the Huron River valley, where a paper mill is known to have existed before 1850, and where the first commercial-scale enterprise was established at Ypsilanti in 1855. The next area to be developed was the St. Joseph River valley; an establishment at Three Riv-

ers was making paper from the middle 1850's. And finally, last of the major areas of development and the most important today, the Kalamazoo valley comes into the picture.

The first mill was established at Marshall in 1862, when H. J. Perrin added paper to his other manufacturing projects. In 1866 a Massachusetts expert from the Connecticut valley came to Kalamazoo to promote interest in starting a mill. Back in 1845 the *Kalamazoo Gazette* had noted the possibilities of the town for this undertaking, and had urged the investment of money in a paper mill, stressing the advantage of the town's pure water supply. But Benjamin Lyon had to persuade the citizenry that the presence of water was more important than the absence of wood. A company went into production of newsprint, and though it was not much of a success, at last paper had come to Kalamazoo to stay. Other mills were built at Otsego, Allegan, Plainwell before 1900, and the industry has so expanded that today more paper-making skill is concentrated in a 25-mile circle around the city than any place else in the country, and the valley area probably produces the nation's greatest concentrated output of paper.

*The Boiling Pot.* Drive near the river of a misty evening and you will understand why it is called *Kalamazoo*. According to legend the Pottawatomes were struck by its steaming appearance and named it *The Place of the Boiling Pot*. However that may be, its humid atmosphere well typifies the quality that has helped make this valley area famous for its paper. Abundant water once meant power for the mills and material for the manufacture, and today the later use is just as important as it ever was. As a

source of power, it has not been important to the local mills, for steam was utilized almost from the first.

Equally important is the location between raw material and market. The inexhaustible demands of the industrial Middle West can be served, and a supply of scrap paper is constantly available. One third of all paper that is made returns to the mills in the form of scrap. It is economically important to the manufacturer to be near a source of this. To take an example, the Sutherland Paper Company may send a truckload of 22,000 lbs. of Lucky Strike cartons to Louisville, a 638 mile round trip. The return trip is not profitless, for the truck comes back loaded with scrap for the beaters, picked up in Anderson, Indiana. Only 140 miles of travel have been without a paying load. A round trip to Chicago may involve no empty trucks at all: big cities turn out waste paper as if they were designed to do nothing else.

*Each Other's Washing.* As for the economic importance of paper to Kalamazoo, it can hardly be overestimated. Its manufacture is the largest division of the city's industry. According to figures supplied by the Chamber of Commerce, the total number of workers engaged in manufacturing in the city is 24,200, and of these almost 10,000 are employed in paper and allied products. Add to these the firms and their workers who cater to the industry in one way or another—makers of twine, pigments, printing supplies, the industrial chemicals so vital in paper manufacturing, and the purveyors of services to the mills, such as contract truckers, and the scales are tipped all the way down in favor of Kalamazoo as a Paper World in itself.

Curiously enough, the paper industry is one of its own best customers.

For one thing, it uses its own product—in the form of publicity—to advertise itself. For another, it uses its product in the normal processes of office procedures and the various steps of printing. Forms, invoices, stationery, envelopes, galley proofs, are all paper. The old story about the French town full of prosperous laundresses who made their living taking in each other's washing could be applied here. There is a sort of fascinating perpetual motion to the paper industry in the way it creates business for its component members. (In a modest way the author is helping to keep the ball rolling: tablet paper, four copies of the first typewritten draft, stationery to cover correspondence on same, two copies of the second draft, galley proofs, page proofs, glossy prints of photos, proofs of photos, and finally 4,500 copies on 60 lb. basis English Finish Book, ten pages or so to each issue. No small contribution to the welfare of the industry, let alone the presumptive value of the article.)

#### **Individual Firms in the Kalamazoo Area**

A quick run-through of the directory of Michigan business turns up some twenty-five plants engaged in some aspect of paper manufacture or conversion in this region. Obviously no article like this, nor even an entire issue of *Business Topics*, could begin to do justice to such complexity, or so much as describe typical operations within various categories of such an industry. Following the recommendation of the Chamber of Commerce, we studied the work of three different firms that cover the scope of possible processes as much as may be, and represent both magnitude and diversity. In addition, we talked with the head of

the Department of Paper Technology at Western Michigan College, where an entire curriculum is devoted to training of young men and women in all aspects of the industry, from forest management to product research.\* (The library at the same institution contains a fine collection of books on paper and specimens of rare and unusual papers.)

*The Sutherland Paper Company.* To paraphrase the Greek physicist Archimedes, this firm could put the world in a neat package if you would give them a place to stand while doing so. Not only could they do it, but they would tailor the carton to order: waterproof paperboard over the oceans, hygroscopic stock to keep the deserts dry, grease-and-stain repellent for lands flowing with milk and honey, and a fancy five-color fade-proof dye-checked customer-tested exterior, with patented closure. In other words, there are hardly any products this firm has not or could not package. Cartons for butter and cigarettes, boxes for soap and shirts, trays for meat and fruit, cans for ice cream and oysters. Some of the containers go to large firms like the Kellogg Company, but the home bakery around the corner is a steady consumer. The 160,000 tons of paperboard produced per year serve not only customers like these but are also sold to other manufacturers for conversion. Sutherland probably makes more different items and deals with more different types of customers than any other paperboard manufacturer in the country.

The firm has several local plants, one of them spanking new. The equipment to handle their diversity of out-

\*MSU's complement is a 4-yr. curriculum in packaging: the only such in the world. This will be treated at length in a later issue.

put includes some of the real iron giants of all American industry. The paper board machines are a block long apiece. The presses, running twenty-four hours a day, include huge rotary Claybournes which can print as many as sixteen colors at a time, and turn out 300,000 cartons an hour when hard pressed. Though such machinery appears to take things into its own hands (a fiendish device snatches paperboard tubes and almost unattend-

ed handles, labels and delivers printed ice cream cans, with their lids on, to a lonely packer some 100 yards away), it still takes a lot of people to run it: 3,600 work for Sutherland.

As for sources of raw materials: pulp paper is bought from several different sources outside the state, as is waste paper, while the local industries already mentioned provide many of the numerous printing, mechanical and chemical supplies. Most of the designs are custom-jobbed for a specific manufacturer's special needs, while the stock designs, differing only in their printed matter, furnish small manufacturers with good packaging at less expense.

*It's a Paper Town.* The home of the KVP Company is Parchment, the town that paper made. Back in 1909 it seemed silly to start a mill outside Kalamazoo in an abandoned sugar beet factory three miles from town on roads that bad weather often made impassible. But the wisdom of choosing this site was soon apparent, for the presence of the mill, and the far-sighted public spirit of the founder, led to growth of a model community, not at all the usual "company town" of the period. Workers were encouraged to



*Sutherland produces everything, even the package for a paper product of a competing firm.*



buy property and build their own homes, and the interrelation of plant, employes and community, while paternalistic, was sufficiently relaxed so that the steps to complete separation of functions came about painlessly and have recently been carried to a successful conclusion. Comparable civic sense in league with industry has been evinced in the company's redemption of a derelict Ontario town, Espanola, which had almost died when the Abitibi Power and Paper Company suspended work there in 1929. To revive the industry was a daring venture both economically and sociologically, involving an area of conifers nearly as large as Rhode Island and a community which had been the home of over 4,000 people. Today the success of the venture is such that the plant supplies not only its Kalamazoo owners but also a subsidiary Canadian firm and outside buyers. Thus KVP became the first producer of converted paper products in America to have continent-wide distribution of its wares from its own plants.

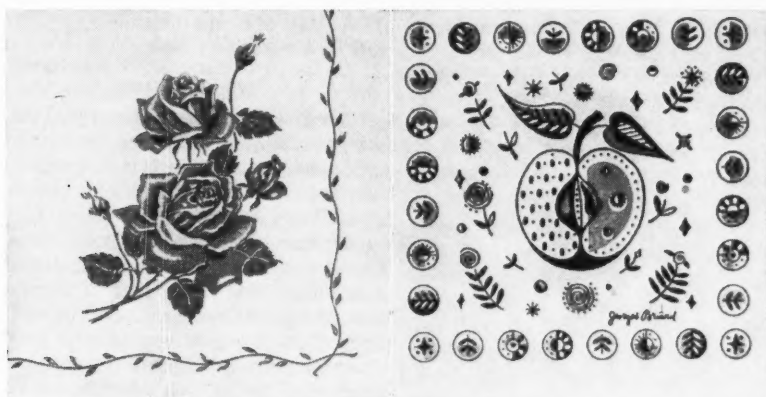
*Vegetable, but not Celery.* The Kalamazoo Vegetable Parchment Company makes many papers, but is best known for its famous vegetable parchment for which it is named. The firm was one of the first in the country to produce this, and their process is a secret one, consisting essentially in a quick sulphuric acid bath for waterleaf paper, that dissolves the fibers into a sort of colloid, making them impervious to water, grease and acid. Simple-minded visitors to the plant, putting two and two together, sometimes come up with the conviction that vegetable parchment made in Kalamazoo must contain celery: this is not the case. The vegetable involved was a larger one, probably a Douglas fir.

True parchment, of course, is treated animal skin prepared for writing, and gets its name from the city of Pergamum which was as famous for its product in the ancient world as Kalamazoo is in the modern one. Vegetable parchment is a marvelous product. A wet sheet of it wrapped around vegetables keeps them cool and crisp. Tied tightly into a bag and plunged into boiling water, it will then cook them in their own juices. After that, it will scour the dishes. Rinse it out well and hang it to dry, and you can use it over and over again. Its versatility in relation to food makes it a home favorite, and indispensable to the camper, who is likely to wash his face with it, too.

The firm's printing operations are famous. Their many different types of paper are imprinted in designs made to order by the plant's artists, with inks manufactured by KVP. Fifty presses of various types are at work, using letter-press, offset and gravure. Some of the paper, after printing, receives further treatment. Much of it is waxed by the firm's own process. They are one of the largest producers of waxed paper in the country, turning out bread wrappers, carton sealing papers and miles and miles of familiar soap wrappers. Another magic conversion operation is the making of special papers: laminated or transparent, oiled, crinkled, die-cut, interfolded, embossed. It is interesting to note that Dow Corning, the subject of our last industrial article\*, supplies KVP with a silicone release agent for paper baking cups.

As for the relative size of the two firms discussed, Sutherland employs more people in the Kalamazoo area,

\*Tall Tale from the Tittabawassee", Business Topics, Nov. 1955, pp. 9-18.



*Plain or fancy: Beach produces paper napkins of both popular and advanced design.*

but KVP has in addition to its 2,500 in Parchment 2,000 others: 200 of them in Sturgis (The Harvey Paper Products Company is a subsidiary) and the rest throughout the United States and Canada. Consider the scope of KVP's manufacturing: the company notes, with a certain grisly relish, that you can be born on their Obstetrical Sheet and end up on their Embalmer's Sheet, with a KVP-covered coffin awaiting you. But the years between are cheered with all sorts of picnics and celebrations involving KVP paper facilities.

**Beach Products.** The third of our firms to be discussed is vastly different from the others. Size alone would distinguish it, for its employees number around 100, rather than two to four thousand. Yet in its way it too is a giant, for its yearly output of approximately 510,000,000 decorated paper napkins is among the largest in the country. Other paper operations are likely to measure their stupendous output in terms of continuous ribbons of paper 13 feet wide reaching from Kalamazoo to the nearest star, but Beach

Products might well boast that its crop, crumpled up and stained with barbecue sauce, would cover the entire earth ankle deep. (Figures have not been verified). The firm's entire process is one of conversion. It buys its tissue and crimps, cuts, dyes, prints, embosses and packages it, using machinery in part adapted by Beach to perform operations no one had succeeded in doing with tissue paper. The processes are so highly mechanized that the small labor force is not a true guide to the amount of production. It may be noted that increasingly efficient machinery enables Beach to achieve with less than half the people it employed in the middle '40s, soon after its founding, three or four times the earlier output.

A major problem is warehousing. The product is inexpensive, bulky, and nationally available, which means that large storage facilities have to be maintained at distribution points. Fork-lift trucks and pallets, which make existing storage space about  $\frac{1}{3}$  more available, have been a godsend to such an industry. Beach Products and Sutherland provide an interesting



example of what biologists call symbiosis: each provides an essential service for the other. Both market, as their own product, matched sets of paper napkins and tablecloths, plates and cups; Beach makes the napkins and cloths in each instance, and Sutherland the cups and plates.

Beach sells its enormous output through syndicates and independent variety stores, and through manufacturers' representatives. Its crepe paper Handi-Sets (described above), and packaged napkins for the retail trade make up the bulk of its business. In addition it turns out a myriad individual custom orders for restaurants and grills from New Berne, North Carolina to Honolulu. These are sometimes of very original design, but the patterns for the mass market are conventional, tending to the forced gaiety of Mickey Mouse, or the congealed poesy of garlands of pink roses. "That's what the customers want," states a company spokesman; "roses, mostly pink ones. Change designs on them and they don't buy. We're working on broadening the public taste, though, and by now they'll even accept blue Canterbury Bells. You're getting someplace when you can get them to buy blue sometimes instead of all this pink".

To enlarge its scope and take in the quality market, Beach Products has developed a top-notch line called Contempo, which is marketed entirely independently of its Handi-Set series, through department stores, stationers, gift shops, and decorator shops. Freelance artists of high caliber provide designs of such beauty that one regrets a paper napkin cannot be framed and kept. Commercial art in this instance has made a happy marriage between practical usefulness and aesthetic value.

The Contempo line includes matched sets of napkins and mats.

### A Spot of History

The first paper makers were either wasps or Chinese, depending upon what you mean by paper. Not Egyptians, however, for though the word *paper* comes from *papyrus*, the product they made from this reed was not a true paper. The split wet stems were matted together, rather than being reduced to watery pulp and then drained dry. You can make paper out of any fiber that can be chewed up and re-assembled in a mat. Nettles, corn stalks, wheat straw, ramie, rice: but the latter is not used for cigarette paper, whatever you may have been told. Down South they are experimenting with paper made from *bagasse*, the waste from cane sugar mills.

The government will be grieved to know it if you are experimentally cooking up rag, pulp and silk fibers at home, for these are the constituents of its money paper stock, and the manufacturing process is so secret that the mills which hold government contracts are not allowed to take visitors into those rooms where the boodle is born.

To return to our history, the Chinese soon abandoned wood pulp in favor of rags, and passed on the art of paper-making to the Arabs. Western Europe managed without paper until the Renaissance (for the most part); and the scarcity and expense of parchment, as well as the tedious process of hand copying, combined to make books a rare commodity. When the situation changed it changed with a bang. The rise to popularity of white linen shirts (personal cleanliness being learned, like so much else, from the Arabs) made rags available as the shirts wore out. Rags and Arabian know-how made



paper available. The printing press could never have transformed European civilization without paper.

One has only to handle an incunabulum ("cradle-volume": a book dating from the infancy of printing, before 1500) to note the superiority of this early paper, which looks almost like new. It was made entirely of pure linen rags, the best material in the world for strength and permanence. And it was made by hand. The Fourdriniers and similar machines are still unable to give paper the strength that comes from the interlocking of the fibers through the motion imparted to the drying frame by a skilled manual worker.

*It Floats on Paper.* Yet if we had to wait around for fine handmade paper we would not have our civilization. The battleship *Missouri* consumed more paper in planning and building than it did steel. Twenty-one acres of engineering drawings are being produced before the ground for a new atomic energy plant has even been turned. And a full tenth of all the wealth generated by United States industry is based upon the production and conversion of wood pulp. Our paper industry really hit its stride in mid nineteenth century when wood pulp in inexhaustible supply supplanted rags as the main source of material.

Per capita paper consumption in this country has doubled in the last fifty years, standing at almost 400 lbs. There seems no predictable limit to the growth of the industry. For one thing paper is so versatile it can substitute for almost anything from shingles to shoe leather. The war stimulated a vast amount of research into this substitution value, turning up undreamed-

of uses. Then again, the competition of metal foils and glass, plastics and silicone have accelerated the development of paper products, as well as contributing immediately to them, as in laminated or coated stocks.

*Paper World of the Future.* The threat and the promise of the years ahead both involve new explorations in the world of paper. Atomic disaster would call for immense supplies of it. Already there are great stockpiles of paper cups, medicine dispensers and hospital supplies against such a day. A more optimistic view of paper in the peaceful world will stress its great potential in this country's future. Our people are increasingly mobile, increasingly leisured. This means a need for convenient and disposable paper items for travel, recreation and camping. Mobile homes will swell the need. As paper helped build an industrial civilization, it can now facilitate the leisured pursuits of more and more of us.

We can close, as we began, with a remote but apt illustration from the western desert. When the happy day comes at last for your big vacation you may have the once-in-a-lifetime thrill of a mule trip down the Bright Angel Trail. At the bottom of the Grand Canyon they will hand you a box lunch. Take a look at the box: the carton itself, the napkin in it, the sandwich bags, the grease-proof wrapping on the fried chicken. Paper, all of them, and from Kalamazoo, most likely.

Our thanks are extended to the Sutherland Paper Company and Beach Products, Inc. of Kalamazoo; Kalamazoo Vegetable Parchment Company of Parchment; the Lee Paper Company of Vicksburg; and to Dr. Alfred Nadelman of Western Michigan College for the material and information that made this article possible.

## PORTRAIT OF A BUSINESSWOMAN

(Whatever other Biblical writers might think about women, the author of this famous passage from the Book of Proverbs (chapter 31, verses 10-31) had practical ideas. His picture of a model woman is quite appropriate for a business magazine).

Who can find a virtuous woman? For her price is far above rubies.

The heart of her husband doth safely trust in her, so that he shall have no need of spoil.

She will do him good and not evil all the days of her life.

She seeketh wool, and flax, and worketh willingly with her hands.

She is like the merchants' ships; she bringeth her food from afar.

She riseth also while it is yet night, and giveth meat to her household, and a portion to her maidens.

She considereth a field, and buyeth it: with the fruit of her hands she planteth a vineyard. . . .

She perceiveth that her merchandise is good: her candle goeth not out by night.

She maketh fine linen, and selleth it; and delivereth girdles unto the merchants.

Strength and honour are her clothing; and she shall rejoice in time to come.

She openeth her mouth with wisdom; and in her tongue is the law of kindness.

She looketh well to the ways of her household, and eateth not the bread of idleness. . . .

Give her of the fruit of her hands; and let her own works praise her in the gates.

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*ANSWERS TO Do You Know These Michigan Towns?*

1. White Pigeon;
2. Detroit and Monroe;
3. Constantine;
4. Hemlock;
5. Mason;
6. Glen.

## PATHWAYS TO THE CAMPUS

There are miles of footpaths crisscrossing this campus—ask any student! But there are also invisible pathways radiating from Michigan State University to every corner of the state, for this institution has accepted as an integral part of its educational responsibility the development of programs that serve the needs of all citizens. The whole state is our campus.

Rural and agricultural services available through the Agricultural Extension Service have long been traditionally associated with State's widespread program. With the creation of the Continuing Education Service in 1948, the number of pathways was increased, till every citizen of Michigan can consider his own driveway the beginning of a path to a classroom. Through the liaison activity of the Service, the needs voiced by Michigan residents can be relayed to the proper college, or the colleges' own proposals for courses can be carried through to the communities or individuals interested. The Continuing Education Service is the University's agency for co-ordinating and facilitating the off-campus educational program in those areas not more appropriately served by the Cooperative Extension Service. Three regional offices staffed by Wesley Schmidt, American Bank Building, Kalamazoo; Lowell Eklund, Penobscot Building, Detroit; Andrew Doyle, Northwest Michigan Community College, Traverse City, intensify services on the local level.

*Business Topics* suggests for Continuing Education a Bible motto from the Book of Daniel: *Many shall run to and fro and knowledge shall be increased.*

## BUSINESS RESEARCH PUBLICATIONS

The Bureau of Business Research was established in 1951 to assist the Michigan State University faculty in conducting economic and business research and to serve Michigan business with information and studies. The studies are usually published, and those currently available are listed below. Inquiries should be addressed to the Bureau's director. Where applicable, draw checks payable to Michigan State University.

### RESEARCH REPORTS

9. *Careers in Hotel and Restaurant Management (Free)*
10. *What Michigan Newspapers Tell About the Schools (Free)*
11. *Winter Resorts in Michigan (\$1.00)*
12. *Taxation of Mobile Homes (\$1.00)*
13. *Wages, Hours, and Fringe Benefits in Member Stores of the Michigan Retail Hardware Association (\$1.00)*
14. *Michigan County Market Data (Free)*

15. *Michigan Statistical Abstract (\$3.00)*

A handy compilation of the most recent statistics on Michigan and its subdivisions. Ten major classifications of data, 179 pages, concerning the economic, social and physical aspects.



